



Complete Summary

GUIDELINE TITLE

Treatment of external genital warts and pre-invasive neoplasia of the lower tract.
In: Canadian consensus guidelines on human papillomavirus.

BIBLIOGRAPHIC SOURCE(S)

Roy M, Bryson P. Treatment of external genital warts and pre-invasive neoplasia of the lower tract. In: Canadian consensus guidelines on human papillomavirus. J Obstet Gynaecol Can 2007 Aug;29(8 Suppl 3):S37-41. [30 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
CONTRAINDICATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

- Human papillomavirus infection
- External genital warts
- Pre-invasive neoplasia

GUIDELINE CATEGORY

Counseling
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology
Pediatrics
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To promote guidelines for health care providers on the key aspects of human papillomavirus (HPV) infection and the management of HPV-related disease in the new era of vaccine availability

TARGET POPULATION

Patients with human papillomavirus infection and/or external genital warts, and/or pre-invasive neoplasia of the lower tract

INTERVENTIONS AND PRACTICES CONSIDERED

Treatment

Self-Applied

1. Podophyllotoxin 0.5% solution or gel
2. Imiquimod 5% cream

Provider-Administered

1. Podophyllin resin 10%-25%
2. Trichloroacetic acid (TCA)
3. Cryotherapy with liquid nitrogen, carbon dioxide or nitrous oxide and cryoprobes
4. Surgical excision
5. Electrosurgical destruction including electrofulguration and desiccation of the lesion
6. CO₂ laser therapy
7. Biopsy or excision (for atypical external genital warts [EGWs] or those resistant to topical therapy, or in immunosuppressed patients)
8. Interferon therapy
9. Referral to an expert in EGW management

MAJOR OUTCOMES CONSIDERED

- Incidence of external genital warts
- Microbiologic cure
- Alleviation of signs and symptoms
- Adverse effects of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Medline and Cochrane databases were searched for articles from January 1995 to March 2007 on subjects related to human papillomavirus (HPV) infection, HPV vaccination, HPV-related disease, Pap testing, and specific consideration of management.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial.

II-1: Evidence obtained from well-designed controlled trials without randomization.

II-2: Evidence obtained from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one center or research group.

II-3: Evidence obtained from comparison between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be regarded as this type of evidence.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

* The quality of evidence reported in these guidelines has been adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

All study types were reviewed. Randomized controlled trial results were considered evidence of the highest quality, followed by results of cohort studies. Key individual studies on which the recommendations are based are referenced. Supporting data for each recommendation were summarized with evaluative comments and references.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Classification of Recommendations*†

- A. There is good evidence to recommend the clinical preventive action
- B. There is fair evidence to recommend the clinical preventive action
- C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making
- D. There is fair evidence to recommend against the clinical preventive action
- E. There is good evidence to recommend against the clinical preventive action
- I. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making

*Woolf SH, Battista RN, Angerson GM, Logan AG, Eel W. Canadian Task Force on Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. Can Med Assoc J 2003;169(3):207-8.

† Recommendations included in these guidelines have been adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

COST ANALYSIS

A formal cost analysis is included in *Chapter 7: Cost-Benefit Analysis of HPV Vaccination* in the original guideline document.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

These guidelines were prepared by the human papillomavirus (HPV) Consensus Guidelines Committee and approved by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The grades of recommendations (A-E and L) and levels of evidence (I, II-1, II-2, II-3, and III) are defined at the end of the "Major Recommendations" field.

1. The management of external genital warts (EGW) should include counseling on epidemiology, prevention of infection, and choice of treatment modalities. **IIIA**
2. A 0.5% solution of podophyllotoxin may be used for self-applied treatment but not in the urethra, vagina, cervix, or anus and not during pregnancy. **II-2B**
3. In the management of EGW, imiquimod application is preferred when extensive laser treatment requiring general anaesthesia would otherwise be indicated. **II-2B**
4. In the management of EGW, laser vaporization should be used only when less aggressive treatments have failed. **II-2B**
5. When EGWs are atypical or do not respond to topical therapy, vulvar intraepithelial neoplasia (VIN) should be ruled out by biopsy or excision. **II-2B**
6. EGWs in children should be managed by a professional experienced in both EGWs and the psychosocial implications of the diagnosis. **IIIA**
7. Therapy for EGWs in immunosuppressed patients involves both correction of the immunosuppression and a combination EGW treatment that includes both ablative and excisional approaches. **II-2B**
8. Pregnant patients with extensive warts, patients who are immunosuppressed and patients who are resistant to therapy should be referred to an expert in EGW management. **II-2B**
9. Trichloroacetic acid (TCA) is a first line therapy for EGW and may be used in the vagina and safely during pregnancy. **II-2B**

Definitions:

Levels of Evidence*

I: Evidence obtained from at least one properly randomized controlled trial.

II-1: Evidence obtained from well-designed controlled trials without randomization.

II-2: Evidence obtained from well-designed cohort or case-control studies, preferably from more than one center or research group.

II-3: Evidence obtained from comparison between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be regarded as this type of evidence.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

*The quality of evidence reported in these guidelines has been adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Grades of Recommendations* †

A. There is good evidence to recommend the clinical preventive action

B. There is fair evidence to recommend the clinical preventive action

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making

D. There is fair evidence to recommend against the clinical preventive action

E. There is good evidence to recommend against the clinical preventive action

I. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making

*Woolf SH, Battista RN, Angerson GM, Logan AG, Eel W. Canadian Task Force on Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. Can Med Assoc J 2003;169(3):207-8.

† Recommendations included in these guidelines have been adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis, treatment, and management of patients with human papillomavirus (HPV) infection and external genital warts or pre-invasive neoplasia

POTENTIAL HARMS

Self-Applied Treatment

The main side effects of imiquimod are local erythema and erosion at the site of application. These side effects are usually mild to moderate, and treatment is generally well tolerated. Imiquimod cream has been used successfully, without side effects, in pregnancy, but it is not licensed for this use. In animal studies, no teratogenic or toxic effects on the fetus have been observed. In the limited number of cases reported, no fetal adverse effects have been observed. Given the limited information available, imiquimod should be prescribed cautiously in pregnancy.

Provider-Applied Topical Treatment

- Systemic toxicity has been reported with use of the Podophyllum resin (10%–25%), and this agent is contraindicated in pregnancy.
- Trichloroacetic acid may produce blisters and ulcerations.

Provider-Applied Ablative Treatment

Side effects of ablative treatment (cryotherapy, surgical excision, electrosurgical destruction and laser therapy) may include bleeding, pain, itching, swelling, and scarring. Special training in the effective and safe use of CO₂ laser therapy equipment is also required, as in unskilled hands laser therapy can cause severe tissue damage and lead to scarring and vaginal or rectal perforation.

Other Provider-Applied Treatment

The side effects of interferon therapy direct delivery of the drug make treatment unacceptable to most women, and therefore interferon is rarely used for external genital warts (EGWs).

CONTRAINDICATIONS

CONTRAINDICATIONS

- Systemic toxicity has been reported with use of Podophyllum resin (10%–25%), and this agent is contraindicated in pregnancy because it is both teratogenic and oncogenic in mice.
- Imiquimod cream has been used successfully, without side effects, in pregnancy, but it is not licensed for this use. In animal studies, no teratogenic

or toxic effects on the fetus have been observed. In the limited number of cases reported, no fetal adverse effects have been observed. Given the limited information available, imiquimod should be prescribed cautiously in pregnancy.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This document reflects emerging clinical and scientific advances on the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Roy M, Bryson P. Treatment of external genital warts and pre-invasive neoplasia of the lower tract. In: Canadian consensus guidelines on human papillomavirus. J Obstet Gynaecol Can 2007 Aug;29(8 Suppl 3):S37-41. [30 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Aug

GUIDELINE DEVELOPER(S)

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

SOURCE(S) OF FUNDING

The development of this consensus guideline was supported by unrestricted educational grants from Cytoc Canada, Digene Corporation, Graceway Canada, GlaxoSmithKline Inc., Merck Frosst Canada Ltd., and Roche Diagnostics Canada.

GUIDELINE COMMITTEE

HPV Consensus Guidelines Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors: Michel Roy, MD, FRCSC, Quebec City QC and Peter Bryson, MD, FRCSC, Kingston ON

Committee Members: Deborah M. Money, MD, FRCSC (*Chair*) Vancouver BC; Michel Roy, MD, FRCSC (*Chair*) Quebec City QC; Lisa Allen, MD, FRCSC, Toronto ON; Monica Brewer, MD, Quispamsis NB; Peter Bryson, MD, FRCSC, Kingston ON; Gerald Evans, MD, FRCSC, Kingston ON; Jean-Yves Frappier, MD, FRCSC, Montreal QC; Mary Anne Jamieson, MD, FRCSC, Kingston ON; Charles Lynde, MD, FRCPC, Markham ON; K. Joan Murphy, MD, FRCSC, Toronto ON; Diane M. Provencher, MD, FRCSC, Montreal QC; Michael Shier, MD, FRCSC, Toronto ON; Marc Steben, MD, Montreal QC; Robert Lerch, Public Health Agency of Canada, Ottawa ON; André Lalonde, MD, FRCSC, Executive Vice-President, Ottawa ON; Vyta Senikas, MD, FRCSC, Associate Executive Vice-President, Ottawa ON

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Disclosure statements have been received from all members of the committees.

ENDORSER(S)

Canadian Association for Adolescent Health - Medical Specialty Society
Canadian Pediatric and Adolescent Gynaecology and Obstetrics Committee - Medical Specialty Society
Federation of Medical Women of Canada - Professional Association
Quebec Association of Pediatricians - State/Local Government Agency [Non-U.S.]
Society of Canadian Colposcopists - Professional Association
Society of Gynecologic Oncologists of Canada - Disease Specific Society

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Society of Obstetricians and Gynaecologists of Canada Web site](#).

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada, La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on July 9, 2009. The information was verified by the guideline developer on July 14, 2009.

COPYRIGHT STATEMENT

This NGC summary is based on the original guideline, which is subject to the guideline developer's copyright restrictions.

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion

or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

[Copyright/Permission Requests](#)

Date Modified: 8/10/2009

